Amendment

U.S. Patent Appln. No. 09/489,570

Storing as a file object within the data repository a list of content entity identifiers

indicating the content entities within the content object, and

storing ones of the plurality of content entities within the data repository as a plurality of

individually accessible file objects, wherein each file object contains one content entity.

2.   (Amended)   The method of claim 1, further comprising the step of creating an attribute

table in the data repository for storing an attribute pertaining to at least one of content objects

and content entities.

3.   (Amended)   The method of claim 2, further comprising the step of creating a row for

each content object in the attribute table, the row containing at least one attribute pertaining to

the content object.

5.   (Amended)   The method of claim 2, wherein at least one attribute is extracted from the

content object.

8.   (Amended)   The method of claim 1, wherein the content object is a book and ones of

the content entities are one of volumes, chapters and sections.

10.   (Amended)   The method of claim 6, wherein at least one of the associated components

comprises an image.

11.   (Amended)   A method for storing at least one hierarchically structured content object

having a plurality of content entities in a data repository, comprising the steps of:

for each content object,

storing as a file object within the data repository an outline of containers and

content entity identifiers defining the content and hierarchy of the content object, and

storing ones of the plurality of content entities within the data repository as a

plurality of individually accessible file objects, wherein each file object contains one content

entity.

12. (Amended) The method of claim 11, further comprising the step of creating an

attribute table in the data repository for storing an attribute pertaining to at least one of content

objects and content entities.

13. (Amended) The method of claim 12, further comprising the step of creating a row for

each content object in the attribute table, the row containing at least one attribute pertaining to

the content object.

16. (Amended) The method of claim 12, wherein at least one attribute is extracted from

the content object.

19. (Amended) The method of claim 11, wherein the content object is a book and ones of

the content entities are one of volumes, chapters and sections.

20. (Amended) The method of claim 11, wherein the content object is a book and ones of

the containers are one of books, volumes and chapters.

22. (Amended)   The method of claim 17, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

23. (Amended)   A method for retrieving a content object from a data repository, the content object being stored within the data repository as a file object containing an ordered list of content entity identifiers indicating the content entities within the content object, comprising the steps of:

retrieving the file object containing the list of content entity identifiers, wherein each content entity is stored as an individually accessible file object within the data repository;

for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity identifier.

24. (Amended)   A method for constructing a content object, the contents of the content object being defined by an ordered list of content entity identifiers identifying one or more content entities each stored in a data repository as an individually accessible file object, comprising the steps of:

for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity

identifier.

25. (Amended) The method of claim 24, further comprising the steps of:

assigning an identifier to the content object; and

assigning new content entity identifiers to the content entities, the new identifiers

including the identifier assigned to the content object.

26. (Amended) A program storage device readable by a machine, tangibly embodying a

program of instructions executable by the machine to perform method steps for storing at least

one content object including a plurality of content entities in a data repository, the method steps

comprising:

for each content object,

storing as a file object within the data repository a list of content entity identifiers

indicating the content entities within the content object, and

storing ones of the plurality of content entities within the data repository as a

plurality of individually accessible file objects, wherein each file object contains one content

entity.

27. (Amended) The device of claim 26, wherein the method steps further comprise the

step of creating an attribute table in the data repository for storing an attribute pertaining to at

least one of content objects and content entities.

28. (Amended) The device of claim 27, wherein the method steps further comprise the

step of creating a row for each content object in the attribute table, the row containing at least

one attribute pertaining to the content object.

29.   (Amended)   The device of claim 27, wherein the method steps further comprise the

step of creating a row for each content entity in the attribute table, the row containing at least one

attribute pertaining to the content entity.

30.   (Amended)   The device of claim 27, wherein at least one attribute is extracted from the

content object.

31.   (Amended)   The device of claim 26, wherein ones of the content entities further

comprise components associated with the content object, and the method steps further

comprising the step of storing each associated component as a file object.

32.   (Amended)   The device of claim 26, wherein the content object is one of a book, a

collection of images, an album, and a video.

33.   (Amended)   The device of claim 26, wherein the content object is a book and ones of

the content entities are one of volumes, chapters and sections.

34.   (Amended)   The device of claim 26, wherein the content object is a compilation of

content.

35. (Amended) The device of claim 31, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

36. (Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for storing at least one hierarchically structured content object including a plurality of content entities in a data repository, the method steps comprising:

for each content object,

storing as a file object within the data repository an outline of containers and content entity identifiers defining the content and hierarchy of the content object, and

storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity.

37. (Amended) The device of claim 36, wherein the method steps further comprise the step of creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

38. (Amended) The device of claim 37, wherein the method steps further comprise the step of creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

39. (Amended) The device of claim 37, wherein the method steps further comprise the

step of creating a row for each container in the attribute table, the row containing at least one attribute pertaining to the container.

40.   (Amended)   The device of claim 37, wherein the method steps further comprise the step of creating a row for each content entity in the attribute table, the row containing at least one attribute pertaining to the content entity.

41.   (Amended)   The device of claim 37, wherein at least one attribute is extracted from the content object.

42.   (Amended)   The device of claim 36, wherein ones of the content entities further comprise components associated with the content object, and the method steps further comprising the step of storing each associated component as a file object.

43.   (Amended)   The device of claim 36, wherein the content object is one of a book, a collection of images, an album, and a video.

44.   (Amended)   The device of claim 36, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

45.   (Amended)   The device of claim 36, wherein the content object is a book and ones of the containers are one of books, volumes and chapters.

46. (Amended) The device of claim 36, wherein the content object is a compilation of content.

47. (Amended) The device of claim 42, wherein at least one of the associated components comprises an image.

48. (Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for retrieving a content object from a data repository, the content object being stored within the data repository as a file object containing an ordered list of content entity identifiers indicating the content entities within the content object, the method steps comprising:

retrieving the file object containing the list of content entity identifiers, wherein each content entity is stored as an individually accessible file object within the data repository;

for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

inserting the content entity into the ordered list at the location of its content entity identifier.

49. (Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for constructing a content object, the contents of the content object being defined by an ordered list of content entity identifiers identifying one or more content entities each stored in a data repository as an individually accessible file object, the method steps comprising:

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for each content entity identifier, retrieving the individually accessible file object corresponding to the identified content entity; and

insertion the content entity into the ordered list at the location of its content entity identifier.

50.   (Amended)   The device of claim 49, wherein the method steps further comprise the steps of:

assigning an identifier to the content object; and

assigning new content entity identifiers to the content entities, the new identifiers including the identifier assigned to the content object.

51.   (Amended)   A system for storing at least one content object including a plurality of content entities in a data repository, comprising:

means for storing, as a file object within the data repository, a list of content entity identifiers indicating the content entities within the content object, and

means for storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity.

52.   (Amended)   The system of claim 51, further comprising means for creating an attribute table in the data repository for storing an attribute pertaining to at least one of content objects and content entities.

53.   (Amended)   The system of claim 52, further comprising means for creating a row for each content object in the attribute table, the row containing at least one attribute pertaining to the content object.

55.   (Amended)   The system of claim 52, wherein at least one attribute is extracted from the content object.

58.   (Amended)   The system of claim 51, wherein the content object is a book and ones of the content entities are one of volumes, chapters and sections.

60.   (Amended)   The system of claim 56, wherein at least one of the associated components comprises one of an image, a video segment and an audio segment.

61.   (Amended)   A system for storing at least one hierarchically structured content object including a plurality of content entities in a data repository, comprising:

     means for storing an outline of containers and content entity identifiers for each content object, the outline being stored as a file object within the data repository and defining the content and hierarchy of the content object, and

     means for storing ones of the plurality of content entities within the data repository as a plurality of individually accessible file objects, wherein each file object contains one content entity.

62.   (Amended)   The system of claim 61, further comprising means for creating an attribute

table in the data repository for storing an attribute pertaining to at least one of content objects

and content entities.

63.   (Amended)   The system of claim 62, further comprising means for creating a row for

each content object in the attribute table, the row containing at least one attribute pertaining to

the content object.

69.   (Amended)   The system of claim 61, wherein the content object is a book and ones of

the content entities are one of volumes, chapters and sections.

70.   (Amended)   The system of claim 61, wherein the content object is a book and ones of

the containers are one of books, volumes and chapters.

72.   (Amended)   The system of claim 67, wherein at least one of the associated components

comprises one of an image, a video segment and an audio segment.

73.   (Amended)   A system for retrieving a content object from a data repository, the content

object being stored within the data repository as a file object containing an ordered list of content

entity identifiers indicating the content entities within the content object, comprising:

means for retrieving the file object containing the list of content entity identifiers,

wherein each content entity is stored as an individually accessible file object within the data

repository;

means for retrieving the individually accessible file object corresponding to each content

entity identifier; and

means for inserting the content entity into the ordered list at the location of its content

entity identifier

74.   (Amended)   A system for constructing a content object, the contents of the content

object being defined by an ordered list of content entity identifiers identifying one or more

content entities each stored in a data repository as an individually accessible file object,

comprising:

means for retrieving the individually accessible file object corresponding to each content

entity identifier; and

means for inserting the content entity into the ordered list at the location of its content

entity identifier.

75.   (Amended)   The system of claim 74, further comprising:

means for assigning an identifier to the content object; and

means for assigning new content entity identifiers to the content entities, the new

identifiers including the identifier assigned to the content object.

Please add new claims 76 - 87 as follows.

--76.   (New) The method of claim 1, wherein the list is manipulable by a user to select the

content entities within the content object

77. (New) The method of claim 11, wherein the outline is manipulable by a user to select the content entities within the content object.

78. (New) The method of claim 23, wherein the list is manipulable by a user to select the content entities within the content object.

79. (New) The method of claim 24, wherein the ordered list is manipulable by a user to select the content entities within the content object.

80. (New) The device of claim 26, wherein the list is manipulable by a user to select the content entities within the content object.

81. (New) The device of claim 36, wherein the outline is manipulable by a user to select the content entities within the content object.

82. (New) The device of claim 48, wherein the list is manipulable by a user to select the content entities within the content object.

83. (New) The device of claim 49, wherein the ordered list is manipulable by a user to select the content entities within the content object.

84. (New) The system of claim 51, wherein the list is manipulable by a user to select the content entities within the content object.

85.   (New) The system of claim 61, wherein the outline is manipulable by a user to select the content entities within the content object.

86.   (New) The system of claim 73, wherein the list is manipulable by a user to select the content entities within the content object.

87.   (New) The system of claim 74, wherein the ordered list is manipulable by a user to select the content entities within the content object.--